

RECEIVED  
CENTRAL FAX CENTER

JAN 17 2007

REMARKS

The Applicants would like to thank the Examiner for the quick and courteous non-final Office Action. The Applicants are also very grateful to the Examiner for allowing claims 40-42.

The claims remaining in the application are 20-29, 31-38 and 40-42. Independent claims 20, 24, 27, and 38 are amended herein. Claim 43 has been cancelled. No new matter has been added.

Rejection under 35 U.S.C. §102(e) over Stowe, et al.

The Examiner rejected claims 20-29, 31-38 and 43 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Pat. No. 6,703,351 to Stowe, et al.

The Examiner finds that the applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, the Examiner contends that it constitutes prior art under 35 U.S.C. §102(e). The Examiner notes that this rejection under 35 U.S.C. §102(e) might be overcome either by a showing under 37 CFR §1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another", or by an appropriate showing under 37 CFR §1.131.

The Examiner contends that Stowe, et al. teaches the same method of the present invention utilizing the same latex containing fluid, and that the filing date of Stowe, et al. is prior to the claimed filing date of the present application, since it claims priority back to provisional application 60/211,162, while the present application does not, and it thus constitutes prior art.

The Applicants would respectfully traverse. The Applicants respectfully submit the enclosed Substitute Combined Declaration and Power of Attorney signed by all of the inventors in the subject application, which Substitute Declaration now claims priority back to provisional application 60/211,162. Applicants respectfully request the Examiner to substitute and replace the original Combined Declaration and Power of Attorney with the enclosed Substitute Declaration. The Applicants would thus respectfully submit that such Substitute Declaration now claims priority for the subject application back to provisional application

60/211,162 filed 6/13/2000, and that the subject rejection of claims 20-29, 31-38 and 43 under 35 U.S.C. §102(e) over U.S. Pat. No. 6,703,351 to Stowe, et al. is either rendered moot and/or overcome. Reconsideration is respectfully requested.

Rejection under 35 U.S.C. §102(b) over GB 2131067

The Examiner rejected claims 20-24, 26-29, 31, 33, 36, and 37 under 35 U.S.C. §102(b) as allegedly being anticipated by GB 2131067.

The Examiner finds that GB '067 teaches a method of drilling using a drilling fluid comprising a latex, water, surfactant, and bentonite which is an aluminosilicate, allegedly the same as the precipitating agent of the present invention. The Examiner asserts that GB '067 teaches the use of PD6 and PD7 latexes which are carboxylated styrene/butadiene copolymer, since they possess carboxylic acid groups (referring to Example 12). The Examiner contends that the latexes would have particle sizes within the scope of claim 37, and that such would inherently inhibit borehole wall invasion as in the present invention.

The Applicants would respectfully traverse.

A patent claim is anticipated, and therefore invalid, only when a single prior art reference discloses each and every limitation of the claim. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047, 34 U.S.P.Q.2d 1565 (Fed. Cir.), cert. denied, 116 S.Ct. 516 (1995). The Applicants respectfully submit that the single GB '067 reference does not disclose each and every limitation of the claims, as amended.

The Examiner's attention is respectfully directed to the amendments to claims 20, 24, 27, and 38 herein where the term "carboxylated styrene/butadiene copolymer" has been deleted. Further, the Applicants would respectfully direct the Examiner's attention to the fact that independent claim 43 has been cancelled. The only latex recited in claim 43 was carboxylated styrene/butadiene copolymer. Although claim 43 was not included explicitly as a rejected claim at point 3 on page 3 of the October 17, 2006 Action, Applicants assume that the Examiner had intended to include it. If this assumption is not correct, and claim 43 was, in fact, only subject to the 35 U.S.C. §102(e) rejection over Stowe, et al.,

the Applicants respectfully request that the Examiner restore independent claim 43 to the application by Examiner's Amendment.

Applicants thus respectfully submit that the single GB '067 prior art reference does not disclose each and every limitation of the claims, as amended herein, and thus the 35 U.S.C. §102(b) rejection must be withdrawn. Reconsideration is respectfully requested.

Rejection under 35 U.S.C. §103(a) over GB 2131067

The Examiner rejected claims 20-24, 26-29, 31, 33, 36, and 37 under 35 U.S.C. §103(a) as allegedly unpatentable over GB 2131067 for reasons of obviousness.

The Examiner finds that GB '067 teaches a method of drilling using a drilling fluid comprising a latex, water, surfactant, and bentonite which is an aluminosilicate, allegedly the same as the precipitating agent of the present invention. The Examiner asserts that the latexes would have particle sizes within the scope of claim 37. The Examiner admits that GB '067 differs from the present invention in not specifically exemplifying the use of a polyethylene latex. However, the Examiner contends that GB '067 teaches that hydrocarbon homopolymers or copolymers are preferred for use as the latex polymer and specifically teaches ethylene/propylene copolymer. The Examiner alleges that it would be obvious to one of ordinary skill in the art to utilize polyethylene as the polymer of the latex of GB '067, given the teaching that hydrocarbon homopolymers or copolymers are preferred for use as the latex polymer, and the specific teaching of ethylene/propylene copolymer. The Examiner contends that this teaching would lead one having ordinary skill in the art to utilize ethylene homopolymer in the latex of GB '067. Such would obviously inhibit borehole wall invasion as in the present invention the Examiner alleges.

In response to the Amendment filed August 3, 2006, the Examiner contends that there is a clear preferential suggestion of the reference to use hydrocarbon polymers which can be homopolymers or copolymers (the last two lines of page 1). Thus, the Examiner alleges that the teaching of the use of an ethylene/propylene copolymer [which GB '067 does not] would be extremely clear motivation to use either of an ethylene or propylene homopolymer, in view of such

teaching on the last two lines of page 1 of GB '067. The Examiner contends that one of ordinary skill in the art having such teaching before them would almost instantly envisage the use of a homopolymer of ethylene or propylene. Furthermore, the Examiner asserts that the homologues of ethylene/propylene copolymer with such similar structures would be expected to have similar utility. The Examiner alleges that one of ordinary skill in the art would thus have a great expectation of success in the use of polyethylene in the latex of GB '067.

Once more the Applicants would respectfully traverse. Applicants submit that it is the Examiner's burden to establish a case of *prima facie* obviousness of the pending claims; *In re Oeticker*, 977 F.2d 1443, 1445; 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). A *prima facie* case must be put forward by the Examiner; missing facts cannot be assumed, *Ex parte Wolters*, 214 U.S.P.Q. 735 (Bd. App. 1979).

GB '067 involves the addition of minor proportions of a polymer, which is insoluble in water, to oil-based or water-based drilling fluid to improve the rheological properties of the fluid and/or improve the fluid loss control of the fluid. The polymer is added in the form of an aqueous dispersion of the polymer (Abstract therein). Latexes mentioned by GB '067 in the paragraph bridging pages 1 and 2 are polybutadiene, polyisoprene, polyisobutylene, natural rubber latex, ethylene/propylene copolymer and butadiene/styrene copolymer. Again, however, it is respectfully submitted that these latexes are not those now recited in present independent claims 20, 24 and 27.

The Examiner points out the last two lines on page 1. Contrary to the Examiner's position, the Applicants respectfully submit that these lines (in bold in the excerpt below that continues through the rest of the paragraph on page 2) in fact *teach away from* polyethylene homopolymer:

**It is preferred to use hydrocarbon polymers and these may be homopolymers or copolymers.** Examples of *suitable homopolymers* include polybutadiene, polyisoprene, polyisobutylene and natural rubber latex, which may be vulcanized or prevulcanised, while examples of *suitable copolymers* include ethylene/propylene copolymers and butadiene/styrene copolymers especially those which contain 50 to

95% by weight of copolymerized butadiene and 50 to 5% by weight of copolymerized styrene. (All emphasis added.)

Applicants respectfully submit that GB '067 specifically lists particular suitable *homopolymers* and particular suitable *copolymers*, and does *not* list polyethylene in the list of suitable *homopolymers*, but DOES list ethylene/propylene copolymers in the list of suitable *copolymers*. What is clear is that the reference does *not* think or disclose polyethylene is a suitable homopolymer. The GB '067 inventors were clearly aware of ethylene as a monomer, since they listed ethylene/propylene copolymers as *suitable* copolymers. However, one having ordinary skill in the art would certainly notice that in the list of *suitable homopolymers*, polyethylene is *not present* – only polybutadiene, polyisoprene, polyisobutylene and natural rubber latex are recited. A clear conclusion is that the GB '067 inventors did not consider polyethylene homopolymer to be a *suitable homopolymer otherwise GB '067 would have listed it as one*. Applicants respectfully submit that a careful review of the paragraph bridging pages 1-2 of GB '067 finds that it is more reasonable to conclude that the GB '067 inventors did *not* think that polyethylene homopolymer was a suitable homopolymer than to conclude that the GB '067 inventors *did* think that polyethylene homopolymer was a suitable homopolymer. Within the same sentence, they include ethylene/propylene copolymers as *suitable* copolymers, but omit polyethylene homopolymer from the first list of suitable homopolymers.

Thus, Applicants respectfully submit that it is *not* obvious and *would not be* obvious to one having ordinary skill in the art that polyethylene latex would work in the inventors' method herein just because GB '067 merely *discloses* that ethylene/propylene copolymer would work. GB '067 does not teach, suggest, hint or disclose that any other homopolymers of ethylene or propylene would be successful, and in fact leaves them out of the "suitable homopolymers" list. It is respectfully submitted that there is nothing in GB '067 that suggests the desirability of modifying ethylene/propylene therein copolymer to be only polyethylene, and instead the more reasonable understanding or inference based on the language of GB '067 in the paragraph bridging pages 1-2 therein is that polyethylene homopolymer is *not* suitable. "Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the

[claimed] structure, '[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the *desirability* of the modification.' " *In re Laskowski*, 871 F.2d 115, 10 U.S.P.Q.2d 1397 (Fed. Cir. 1989) (emphasis added). "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the *desirability* of the modification." *In re Fritch*, 972 F.2d 1260, 1266; 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) (emphasis added). Applicants respectfully submit that the desirability of modifying the GB '067 disclosure to be what is claimed herein, a modification urged by the Examiner, is not present and not in existence, disclosed or suggested in the GB '067 teachings. The instant rejection does not reach *prima facie* obviousness.

Applicants respectfully submit that based on the GB '067 teaching, it is not even "obvious to try" polyethylene, because the more likely and more clear inference is that polyethylene is *not* a suitable homopolymer, and thus should *not* be tried.

Even if it were correct to say that GB '067 teaches that it is obvious to try polyethylene (which the reference does not), "obvious to try" is not the proper standard of a 35 U.S.C. §103 rejection. "Obvious to try" has long been held not to constitute obviousness, *In re O'Farrell*, 853 F.2d 894, 903, 7 U.S.P.Q.2d 1673, 1680-81 (Fed. Cir. 1988). A general incentive does not make obvious a particular result, nor does the existence of techniques by which those efforts can be carried out, *In re Deuel*, 51 F.3d 1552, 1559, 34 U.S.P.Q.2d 1210 (Fed. Cir. 1995).

"At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However, this is not the standard of 35 U.S.C. §103. *In re Goodwin*, 576 F.2d 375, 377, 198 U.S.P.Q. 1, 3 (C.C.P.A. 1978); *In re Antonie*, 559 F.2d 618, 195 U.S.P.Q. 6 (C.C.P.A. 1977); *In re Tomlinson*, 363 F.2d 928, 150 U.S.P.Q. 623 (C.C.P.A. 1966)." *In re Geiger*, 815 F.2d 686, 688; 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987).

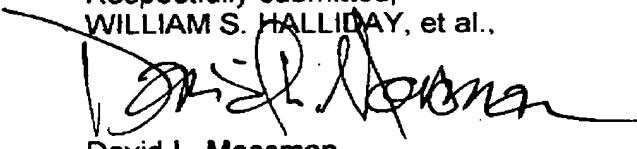
Applicants respectfully submit that there is no incentive, assurance, no reasonable expectation of success, based on the teaching of GB '067 that polyethylene would function to properly inhibit borehole wall invasion, particular when it is *not* included or listed as a "suitable" homopolymer when taken together with the

teaching that ethylene/propylene copolymers are "suitable" copolymers. The Federal Circuit has held that, in order for an invention to be obvious over the prior art, two things must be found in the prior art, and not in the Appellants' disclosure — (1) the suggestion of the invention, and (2) the expectation of its success. *In re Vaeck*, 947 F.2d 488, 493; 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Applicants respectfully submit that *both* of these elements are absent in the instant application. There is no evidence on the record that polyethylene performs as ethylene/propylene copolymer or that polyethylene homopolymer is or might be suitable in the method of GB '067.

It is thus respectfully submitted that a *prima facie* 35 U.S.C. §103 rejection has not been made. The instant rejection is thus overcome and should be withdrawn. Reconsideration is respectfully requested.

It is respectfully submitted that the arguments, amendments and Substitute Declaration presented above overcome the rejections and place the claims in condition for allowance. Reconsideration and allowance of the claims are respectfully requested. The Examiner is respectfully reminded of his continuing duty to indicate allowable subject matter. The Examiner is also invited to call the Applicants' attorney at the number below for any reason, especially any reason that may help advance the prosecution.

Respectfully submitted,  
WILLIAM S. HALLIDAY, et al.,



David L. Mossman  
Registration No. 29,570  
Attorney for Applicants  
Telephone No. 512/219-4026  
Facsimile No. 512/219-4036

Madan, Mossman & Sriram, P.C.  
2603 Augusta, Suite 700  
Houston, TX 77057-5640